PREFACE

This supplement contains amendments to the environmental regulations adopted during the 3rd quarter of 2013 (July - September).

The amendments in this publication include the following:

Media	Rule Log #	Final Date
Part III. Air	AQ313	August 20, 2013
Part V. Hazardous Waste	HW112ft	September 20, 2013
	HW113ft	September 20, 2013

Log # Suffix Key:

ft – Fast-Track Rule - Federal regulations promulgated in accordance with expedited procedures in R.S. 49:953(F)(3)
F – Federal Language
L – Louisiana Language
S – Substantive Changes to Proposed Rule
P – Rule resulting from a Petition for Rulemaking

Brenda Hayden

Environmental Regulatory Code Editor

This book belongs to:

Name:

Company:

Phone #: ( )

NOTES:

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Title 33
ENVIRONMENTAL QUALITY
Part III. Air
Chapter 21. Control of Emission of Organic Compounds
Subchapter A. General

§2121. Fugitive Emission Control

A. Applicability. This Section is applicable to each process unit at petroleum refineries, natural gas processing plants, synthetic organic chemical manufacturing industry (SOCMI) facilities, methyl tertiary butyl ether (MTBE) manufacturing facilities, and polymer manufacturing facilities that contains any of the following components that operate in volatile organic compound (VOC) service for 300 hours or more during the calendar year:

1. – 9. …

B. Definitions. Terms used in this Section are defined in LAC 33:III.111.A of these regulations with the exception of those terms specifically defined in this Section as follows.

Alternative Work Practice (AWP)—the use of optical imaging to detect leaks as described in 40 CFR 60.18(g), (h) and (i).

Connector—flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. Joined fittings welded completely around the circumference of the interface are not considered connectors.

Difficult-to-Monitor—equipment that cannot be monitored without elevating the monitoring personnel more than two meters above a support surface.

Double Block and Bleed System—two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment—each pump, compressor, pressure relief device, open-ended valve or line, process drain, valve, agitator, instrumentation system, and connector in VOC service. For the purpose of these regulations *equipment* shall be synonymous with component.

Force Majeure—an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

In Gas/Vapor Service—equipment that contains a VOC in a gas or vapor state at operating conditions.

In Heavy Liquid Service—equipment that is not in gas/vapor service or in light liquid service.

In Light Liquid Service—

a. Equipment containing a fluid that meets all of the following conditions:

i. the vapor pressure of one or more of the organic compounds is greater than 0.3 kPa (0.0435 psi) at 20°C (68°F). (Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressure);

ii. the total concentration of the pure organic compounds having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight; and

iii. the fluid is a liquid at operating conditions.

b. As an alternative to Subparagraph a of this Paragraph, an owner or operator of petroleum refineries, natural gas processing plants, and polymer manufacturing facilities has the option to use ASTM Method D86-78, 82, 90, 95, or 96. The equipment is in *light liquid service* if the evaporated fluid weight is greater than 10 percent at 150°C (302°F).

In Liquid Service—equipment that is not in gas/vapor service.

In Vacuum Service—equipment operating at an internal pressure that is at least 20 inches of water (38 millimeters of mercury) below ambient pressure.

In VOC Service—for petroleum refineries, SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities: a piece of equipment that contains or contacts a process fluid that is at least 10 percent VOC by weight. For natural gas processing plants: a piece of equipment that contains or contacts a process fluid that is at least 1.0 percent VOC by weight.

Inspect—examine the component for visible, audible, or olfactory evidence of a leak.

Instrumentation System—a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow). Valves and connectors are the predominant types of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches or smaller and connectors nominally 0.75 inches or smaller in diameter are considered part of instrumentation systems for the purposes of this Section. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and shall be monitored individually as a valve or connector.

Monitor(ed)—determination of VOC concentration at equipment components in accordance with Method 21 (see 40 CFR Part 60, Appendix A-7), or the *Alternative Work Practice* as provided in this Section.

Open-Ended Valve or Line—any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Optical Gas Imaging Instrument—an instrument that makes emissions visible that may otherwise be invisible to the naked eye.

Process Drain—any opening (including a covered or controlled opening) that receives or conveys wastewater into a wastewater system.

Process Unit—a facility, or any part thereof, that can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process Unit Shutdown—a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. The following are not considered process unit shutdowns:

a. an unscheduled work practice or operational procedure that stops production from a process unit, or part of a process unit, for less than 24 hours;

b. an unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start-up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown;

c. the use of spare equipment and technically feasible bypassing or isolating of equipment without stopping production; and

d. the idling of a process unit due to force majeure.

Repair—adjust or otherwise alter equipment in order to eliminate a leak.

Unsafe-to-Monitor—equipment that cannot be monitored without exposing monitoring personnel to immediate danger.

C. Fugitive Emission Control Requirements

1. Leak Limitations

a. No *component* listed in Paragraph A.1-9 of this Section shall be allowed to emit VOC:

i. exceeding an instrument reading of 10,000 parts per million (ppm), as determined by Method 21 (40 CFR Part 60, Appendix A, as incorporated by reference in LAC 33:III.3003);

ii. which can be imaged when following the *alternative work practice (AWP)* as defined in Subsection B of this Section; or

iii. where visible, audible, or olfactory evidence indicates the presence of a leak.

2. Open-Ended Valves or Lines

a. Each open-ended valve or line shall be equipped with a second valve, blind flange, plug, or cap. These sealing devices may only be removed when the line is in use, (i.e., when a sample is being taken). When the line has been used and is subsequently resealed, the upstream valve shall be closed first, followed by the sealing device.

b. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but shall comply with Subparagraph C.2.a of this Section at all other times.

c. Open-ended valves or lines in emergency system(s) (e.g., pressure relief devices) which are designed to open automatically in the event of a process upset are exempt from the requirements of Subparagraph C.2.a of this Section.

d. Open-ended valves or lines containing asphalt, materials that would autocatalytically polymerize or would present an explosion, serious over pressure, or other safety hazard if sealed or equipped with a double block and bleed system are exempt from the requirements of Subparagraph C.2.a of this Section.

3. Leak Repair

a. The owner or operator shall make every reasonable effort to repair a leaking component, as described in Subparagraph C.1.a or Subparagraph D.3.b of this Section, within 15 calendar days of detection. A repair is considered successful if it meets any of the following conditions:

i. a component is *monitored* as defined in Subsection B of this Section (or remonitored) to verify that the instrument reading is below the applicable leak definition in Subparagraph C.1.a of this Section;

ii. a component that has been identified as leaking using the AWP, either meets Clause C.3.a.i of this Section, or the emissions are no longer visible using the AWP; or

iii. a component in liquid service that has been identified as leaking by visual, audible, or olfactory means, including, use of the soap bubble test for natural gas processing plants, either meets Clause C.3.a.i of this Section, or when visual, audible, or olfactory indications of the leak have been eliminated.

b. Equipment that cannot be repaired shall be placed on a delay-of-repair list, unless it can be isolated or bypassed to eliminate the leak. Equipment on the delay-of-repair list shall be repaired by the end of the next scheduled process unit shutdown. The *administrative authority* as defined in LAC 33:III.111.A reserves the right to take enforcement action pursuant to R.S. 30:2025, should it be determined that the total percentage of components on the delay-of-repair list is excessive or is causing damage to the public health or environment.

c. Equipment placed on the delay-of-repair list in accordance with Subparagraph C.3.b of this Section may be removed from the list if it meets any of the following conditions:

i. the equipment is monitored or imaged, and for two consecutive monthly periods, either the instrument readings are below the leak limitation specified in Subparagraph C.1.a of this Section or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP; or

ii. the owner or operator has undertaken additional or extraordinary efforts to repair the leaking equipment, and subsequent monitoring or imaging demonstrates that either the instrument readings are below the leak limitation in Subparagraph C.1.a of this Section, or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP. Extraordinary efforts are nonroutine repair methods (e.g., sealant injection, clamp installation) or utilization of a closed-vent system to capture and control the leak by at least 90 percent.

[Note: The decision to monitor equipment on the delay-of-repair list or undertake extraordinary efforts to repair equipment shall be made solely at the owner or operator's discretion.]

D. Monitoring and Inspection Requirements. Monitoring of components by Method 21 and inspections shall be conducted according to this Subsection. After initially complying with this Subsection by use of Method 21, the owner or operator may elect to comply with the appropriate alternate monitoring schedule(s) in Subsection E of this Section. In lieu of Method 21 monitoring, optical imaging may be conducted in accordance with the AWP. If the owner or operator elects to use the AWP, the requirements for instrument specifications, instruments checks, monitoring frequency, leak survey procedures, recordkeeping, and reporting shall be followed as described in 40 CFR 60.18 (g), (h), and (i). The alternate monitoring schedule(s) in Subsection E of this Section are not applicable when using the AWP.

1. Petroleum refineries, SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities shall perform the following.

a. Monitor the following components one time per calendar year (annually):

i. pumps in light liquid service at refineries;

ii. valves in light liquid service at refineries; and

iii. process drains.

b. Monitor the following components four times per year (quarterly):

i. compressor seals;

ii. valves in gas/vapor service;

iii. pressure relief valves in gas/vapor service;

iv. valves in light liquid service at SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities; and

v. pumps in light liquid service at SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities.

c. Inspect pump seals visually 52 times a year (weekly).

d. Inspect instrumentation systems weekly by visual, audible, or olfactory means. As an alternative to weekly sensory inspections, monitor individual valves of an instrumentation system in accordance with Clauses D.1.a.ii, D.1.b.ii, or D.1.b.iv of this Section, as applicable.

e. Records of visual, audible, or olfactory inspections of connectors and instrumentation systems are not required unless a leak is detected.

2. Natural gas processing plants shall perform the following.

a. Inspect pump seals and compressor seals visually 52 times a year (weekly).

b. Monitor the following components four times a year (quarterly):

i. pumps in light liquid service;

ii. compressor seals;

iii. valves in light liquid service and valves in gas/vapor service; and

iv. pressure relief valves in gas/vapor service.

c. Inspect instrumentation systems 52 times a year (weekly) by visual, audible, or olfactory means. As an alternative to weekly sensory inspections, monitor individual valves of an instrumentation system in accordance with Clause D.2.b.iii of this Section.

d. Records of visual, audible, or olfactory inspections of instrumentation systems are not required unless a leak is detected.

3. Facilities listed in Paragraphs D.1 and 2 of this Section shall perform the following.

a. Monitor any pressure relief valve in gas/vapor service within five calendar days s after it has vented to the atmosphere. Difficult-to-monitor pressure relief valves shall be monitored within 15 calendar days and unsafe-to-monitor pressure relief valves shall be monitored as soon as possible, when conditions would allow the component to be safely monitored.

b. Within five calendar days, any component listed in Paragraphs A.1-9 of this Section identified as leaking by visual, audible, or olfactory means shall be:

i. repaired in accordance with Clause C.3.a.iii of this Section;

ii. monitored (using either Method 21 or the AWP); or

iii. designated as a leak (pursuant to Method 21 or the AWP).

c. Difficult-to-monitor components shall be monitored within 15 calendar days and unsafe-to-monitor components shall be monitored as soon as possible, when conditions allow the component to be safely monitored. Visual, audible, or olfactory leaks designated as a leak or confirmed to be in excess of the applicable leak limitation in Subparagraph C.1.a of this Section by Method 21 monitoring, shall be repaired according to Subparagraph C.3.a of this Section.

d. Difficult-to-monitor valves shall be monitored once per calendar year (annually).

e. Unsafe-to-monitor equipment shall be monitored as soon as possible when conditions allow the component to be monitored safely (e.g., during a shutdown).

f. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Clause D.1.a.ii, D.1.b.ii, D.1.b.iv, or D.2.b.iii of this Section if the valve:

i. has no external actuating mechanism in contact with the process fluid (e.g., diaphragm valves, sealed bellows valves);

ii. is operated with emissions less than 500 ppm above background as measured by Method 21; and

iii. is monitored for compliance with Clause D.3.e.ii of this Section initially upon designation and once per calendar year thereafter.

g. Equipment that begins operation after the initial start-up date for the process unit shall be monitored for the first time by the end of the monitoring period in which the process unit start-up is completed, or 45 calendar days after the start-up period is completed, whichever is later. Equipment that replaces leaking equipment shall continue on the monitoring schedule for the equipment that it replaced.

h. Monitoring to verify repairs that were made during a process unit shutdown shall occur by the end of the monitoring period in which the process unit start-up is completed, or 45 calendar days after the start-up period is completed, whichever is later.

4. Exemptions. Monitoring and inspections are not required on the following:

a. check valves;

b. pressure relief devices, pump seals or packing, and compressor seals or packing where leaks are vented to a process or fuel gas system, or equipped with a closed-vent system capable of transporting leakage to a control device;

c. pressure relief devices equipped with a rupture disc, or other similar leak-tight pressure relief component, upstream of the pressure relief device; provided that after each pressure release, the rupture disc, or other similar leak-tight component is replaced as soon as practicable; but not later than 15 calendar days;

d. equipment in vacuum service;

e. equipment at natural gas processing plants with less than 40 million standard cubic feet per day rated capacity that do not fractionate natural gas liquids;

f. components contacting only organic compounds exempted in LAC 33:III.2117 or mixtures of same with water;

g. pumps and compressors that are sealless or have a double mechanical seal;

h. pumps designed with no external shaft penetrating the pump housing;

i. research and development pilot facilities and small facilities with less than 100 valves in gas/vapor or liquid service;

j. insulated or buried equipment;

k. components that have been placed on a delay-of-repair list are exempt from further monitoring until a repair has been attempted, except that an owner or operator may monitor components on the delay-of-repair list in accordance with Subparagraph C.3.c of this Section in order to remove equipment from the delay-of-repair list; and

l. process drains that are components of individual drain systems subject to 40 CFR 60 Subpart QQQ, 40 CFR 61 Subpart FF, or 40 CFR 63 Subparts G or YY.

5. Alternate Monitoring Program. Any facility that already has in place a fugitive emission monitoring program which controls emissions to a higher degree than required under this Section shall be exempted from this Section upon submittal of a description of the program to the *administrative authority** as defined in LAC 33:III.111.A. A facility which has consolidated into an overall more stringent program in accordance with the Louisiana Consolidated Fugitive Emissions Program (i.e., with a Source Notice and Agreement or a Title V permit) is exempted from the requirement of submitting a description of the program to the administrative authority*. (The Louisiana Fugitive Emission Program Consolidation Guidelines are contained in LAC 33:III.2199.Appendix B).

6. Force Majeure

a. If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the administrative authority, in writing, as soon as practical following the date the owner or operator first knew, or through due diligence should have known that the event may cause or has caused a delay in monitoring beyond the regulatory deadline. The notification shall occur before the monitoring deadline unless the initial force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

b. The owner or operator shall provide to the administrative authority a written description of the force majeure event and a rationale for attributing the delay in monitoring beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the monitoring. The monitoring shall be conducted as soon as practicable after the force majeure occurs.

c. The decision to grant an extension to the monitoring deadline is solely within the discretion of the administrative authority. The administrative authority shall notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practical.

d. Until an extension of the monitoring deadline has been approved by the administrative authority under Subparagraph D.6.c of this Section, the owner or operator of the affected facility remains subject to the requirements of this Section.

E. Alternate Monitoring Frequency. The monitoring schedule in Paragraph D.1 or 2 of this Section may be modified as follows.

1. Alternate Standards for Valves and Pumps subject to Subparagraph D.1.b or D.2.b of this Section—Skip Period Leak Detection and Repair

a. An owner or operator may elect to comply with one of the alternate work practices specified in Subparagraph E.1.b or c of this Section. However, the administrative authority shall be notified in writing before one of the alternate work practices is implemented.

b. After two consecutive quarterly leak detection periods with the total percent of leaking and delay-of-repair components (Equation 1 of this Section) equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for valves in gas/vapor service, valves in light liquid service, and/or pumps in light liquid service.

c. After five consecutive quarterly leak detection periods with the total percent of leaking and delay-of-repair components (Equation 1 of this Section) equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for valves in gas/vapor service, valves in light liquid service, and/or pumps in light liquid service.

d. If the total percent of leaking and delay-of-repair components (Equation 1 of this Section) increases to greater than 2.0 after implementing one of the alternate work practices in Subparagraph E.1.b or c of this Section, the owner or operator shall comply with the requirements as described in Paragraph D.1 or 2 of this Section, but subsequently may elect to use this Subsection when the requirements are met.

2. Alternate Standards for Valves and Pumps Subject to Subparagraph D.1.b or D.2.b—Increased Monitoring Frequency. If the total percent of leaking and delay-of-repair components (Equation 1 of this Section) is greater than 2.0, then an increase in the frequency of monitoring may be required by the administrative authority.

3. The total percent of leaking and delay-of-repair components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 1. (Equation 1 shall be calculated separately for each component type.)

Equation 1

$$\%C_{T1} = \left(C_L + C_{TU}\right) / \left(C_T + C_{TU}\right) * 100\%$$

where:

$\%C_{T1}$ = total percent of leaking components including delay-of-repair components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_{TU} = number of components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

F. Recordkeeping

1. When a component remains leaking after every reasonable attempt at repair within the 15-calendar day period provided by Subparagraph C.3.a of this Section has been exhausted, a weatherproof and readily visible tag bearing an identification number and the date the leak was located shall be affixed to the leaking component. After the leak has been repaired, the tag may be removed.

2. A survey log shall be maintained by the operator which shall include the following:

a. the name of the process unit where the leaking component is located;

b. the type of leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section;

e. the date the leak was located;

f. the date maintenance was performed;

g. the date the component was rechecked after maintenance, and the results (i.e., instrument reading; visual,

audible, or olfactory results; soap bubble test results; AWP video);

h. a record of the monitor calibration or AWP daily instrument check;

i. a delay-of-repair list;

j. a bypassed or isolated component list; and

k. a record of all monitoring, imaging, and inspection results.

3. The owner or operator shall retain the survey log for two years after the latest date specified in Paragraph F.2 of this Section and make the log available to the administrative authority upon request.

4. The optional use of the AWP shall require storing video and other records of the daily instrument check and inspections as required in 40 CFR 60.18.

G. Reporting Requirements. The owner or operator of the affected facility shall submit a report semiannually to the Office of Environmental Services for each calendar quarter during the reporting period. The reports are due by the last day of the month (i.e., January 31 and July 31) following the monitoring period or by an alternate date approved by the administrative authority. The reports shall include the following information for each quarter of the reporting period:

1. the number of each component type for which monitoring is required by Subsection D or E of this Section versus the number monitored and the total percent of leaking and delay-of-repair components (See Equation 1 of this Section) for each component type for which alternate control techniques are allowed by Subsection E of this Section;

2. a listing of all leaks that were identified, but not repaired, within the 15-day limit, including the following information:

a. the name of the process unit where the leaking component is located and the date of last unit shutdown;

b. the type of the leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section, if the component is on the delay-of-repair list;

e. the date the leak was located;

f. the monitoring or inspection results;

g. the date maintenance was performed;

h. the date the leak is expected to be repaired if the component is on the delay-of-repair list; and

i. the reason repairs failed or were postponed;

3. a signed statement attesting to the fact that all requirements of this Section have been met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, Air Quality Division, LR 13:741 (December 1987), amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 16:959 (November 1990), LR 17:654 (July 1991), LR 21:1330 (December 1995), LR 22:1128 (November 1996), LR 22:1212 (December 1996), LR 24:22 (January 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:1433 (July 2000), LR 26:2452 (November 2000), LR 30:1659 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2440 (October 2005), LR 33:2086 (October 2007), LR 34:70 (January 2008), amended by the Office of the Secretary, Legal Division, LR 39:2239 (August 2013).

§2122. Fugitive Emission Control for Ozone Nonattainment Areas and Specified Parishes

A. Applicability

1. This Section is applicable to each process unit at petroleum refineries, natural gas processing plants, synthetic organic chemical manufacturing industry (SOCMI) facilities, methyl tertiary butyl ether (MTBE) manufacturing facilities, and polymer manufacturing facilities that contains any of the following components that operate in volatile organic compound (VOC) service for 300 hours or more during the calendar year:

a. – i. …

2. The requirements of this Section shall be applicable to sources located in the parishes of Ascension, East Baton Rouge, Iberville, Livingston, Pointe Coupee, and West Baton Rouge effective January 1, 1996.

3. The requirements of this Section shall be applicable to sources located in the parish of Calcasieu effective January 1, 2003.

4. When the provisions of this Section are effective, process units to which this Section applies that are also subject to the provisions of LAC 33:III.2121 will not be required to comply with the provisions of LAC 33:III.2121.

5. Facilities listed in Paragraph A.1 of this Section, which are subject to New Source Performance Standards, 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or National Emission Standards for Hazardous Air Pollutants, 40 CFR 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.5116, may become exempt from this Section by:

a. submitting a written notice to the *administrative authority*[*] as defined in LAC 33:III.111.A informing them of the facility's request to become exempt from this Section and how 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.5116, will be administered to obtain the exemption;

b. applying 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in

LAC 33:III.5116, to leak limitations specified in Paragraph C.1 of this Section rather than 10,000 ppm as specified in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.5116;

c. including connectors as components monitored and repaired using the restrictions in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.5116, which apply to valves; and

d. increasing the monitoring frequency of valves only when the valves monitored and repaired using the restrictions in 40 CFR 60.480-489 (Subpart VV), 60.590-593 (Subpart GGG), 60.630-636 (Subpart KKK), as incorporated by reference in LAC 33:III.3003, or 61.240-247 (Subpart V), as incorporated by reference in LAC 33:III.5116, which apply to valves, equal or exceed 2 percent of the valves leaking at or above 10,000 ppm.

B. Definitions. Terms used in this Section are defined in LAC 33:III.111 with the exception of those terms specifically defined as follows.

Alternative Work Practice (AWP)—the use of optical imaging to detect leaks as described in 40 CFR 60.18(g), (h) and (i).

Connector—flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. Joined fittings welded completely around the circumference of the interface are not considered connectors.

Difficult-to-Monitor—equipment that cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

Double Block and Bleed System—two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment—each pump, compressor, pressure relief device, open-ended valve or line, process drain, valve, agitator, instrumentation system, and connector that is in VOC service. For the purpose of these regulations *equipment* shall be synonymous with component.

Force Majeure—an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement within the specified time frame despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Good Performance Level—Repealed.

Heavy Liquid Service—Repealed.

Inaccessible Valve—Repealed.

In Gas/Vapor Service—equipment that contains a VOC in a gas or vapor state at operating conditions.

In Heavy Liquid Service—equipment that is not in gas/vapor service or light liquid service.

In Light Liquid Service—

a. Equipment containing a fluid that meets all of the following conditions:

i. the vapor pressure of one or more of the organic compounds is greater than 0.3 kPa (0.0435 psi) at 20°C (68°F). (Standard reference texts or ASTM D2879-83, 96, or 97 shall be used to determine the vapor pressure);

ii. the total concentration of the pure organic compounds having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight; and

iii. the fluid is a liquid at operating conditions.

b. In the alternative to Subparagraph a of this Paragraph, an owner or operator of petroleum refineries, natural gas processing plants, and polymer manufacturing facilities has the option to use ASTM Method D86-78, 82, 90, 95, or 96. The equipment is in light liquid service if the evaporated fluid weight is greater than 10 percent at 150°C (302°F).

In Liquid Service—equipment that is not in gas/vapor service.

In Vacuum Service—equipment operating at an internal pressure that is at least 20 inches of water (38 millimeters of mercury) below ambient pressure.

In VOC Service—for petroleum refineries, SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities; a piece of equipment that contains or contacts a process fluid that is at least 10 percent VOC by weight. For natural gas processing plants, a piece of equipment that contains or contacts a process fluid that is at least 1.0 percent VOC by weight.

Inspect—examine the component for visible, audible, or olfactory evidence of a leak.

Instrumentation System—a group of equipment components used to condition and convey a sample of the process fluid to analyzers and instruments for the purpose of determining process operating conditions (e.g., composition, pressure, flow). Valves and connectors are the predominant types of equipment used in instrumentation systems; however, other types of equipment may also be included in these systems. Only valves nominally 0.5 inches and smaller and connectors nominally 0.75 inches and smaller in diameter are considered instrumentation systems for the purposes of this Section. Valves greater than nominally 0.5 inches and connectors greater than nominally 0.75 inches associated with instrumentation systems are not considered part of instrumentation systems and shall be monitored individually as a valve or connector.

Light Liquid—Repealed.

Light Liquid Service—Repealed.

Liquid Service—Repealed.

Monitor(ed)—determination of VOC concentration at equipment components in accordance with Method 21 (see 40 CFR Part 60, Appendix A-7), or the *Alternative Work Practice* as provided in this Section.

Open-Ended Valve or Line—any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

Optical Gas Imaging Instrument—an instrument that makes emissions visible that may otherwise be invisible to the naked eye.

Process Drain—any opening (including a covered or controlled opening) that receives or conveys wastewater into a wastewater system.

Process Unit—a facility, or any part thereof, that can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

Process Unit Shutdown—a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be effected. The following are not considered process unit shutdowns:

a. an unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours;

b. an unscheduled work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start-up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown;

c. the use of spare equipment and technically feasible bypassing or isolating of equipment without stopping production; and

d. the idling of a process unit due to force majeure.

Repair—adjust or otherwise alter equipment in order to eliminate a leak.

Unrepairable Component—Repealed.

Unsafe-to-Monitor—equipment that cannot be monitored without exposing monitoring personnel to immediate danger.

C. Fugitive Emission Control Requirements

1. Leak Limitations

a. No component listed in Subparagraphs A.1.a.-i of this Section in petroleum refineries, SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities shall be allowed to emit VOC:

i. exceeding an instrument reading of 1,000 parts per million (ppm) for valves, connectors, instrumentation systems, pressure relief devices, and process drains; 5,000 ppm for pumps and compressors; or 10,000 ppm for agitators, as determined by Method 21 (40 CFR Part 60, Appendix A, as incorporated by reference in LAC 33:III.3003);

ii. which can be imaged when following the *alternative work practice (AWP)* as defined in Subsection B of this Section; or

iii. where visible, audible, or olfactory evidence indicates the presence of a leak.

b. No component listed in Subparagraphs A.1.a-i of this Section in natural gas processing plants shall be allowed to emit VOCs exceeding an instrument reading of 2,500 ppm for valves, connectors, instrumentation systems, pressure relief devices, and process drains; 5,000 ppm for pumps and compressors 10,000 ppm for agitators, as determined by Method 21 (40 CFR Part 60, Appendix A, as incorporated by reference in LAC 33:III.3003), or which can be imaged when following the AWP described in 40 CFR 60.18.

2. Open-Ended Valves or Lines

a. Each open-ended valve or line shall be equipped with a second valve, a blind flange, a plug, or a cap. Such sealing devices may be removed only when the line is in use, (i.e., when a sample is being taken). When the line has been used and is subsequently resealed, the upstream valve shall be closed first, followed by the sealing device.

b. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves, but it shall comply with Subparagraph C.2.a of this Section at all other times.

c. Open-ended valves or lines in emergency system(s) (i.e., pressure relief devices) that are designed to open automatically in the event of a process upset, are exempt from the requirements of Subsection C.2.a of this Section.

d. Open-ended valves or lines containing asphalt, materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if sealed or equipped with a double block and bleed system, are exempt from the requirements of Subparagraph C.2.a of this Section.

3. Leak Repair

a. The owner or operator shall make every reasonable effort to repair a leaking component, as described in Paragraph C.1 or Subparagraph D.3.b of this Section, within 15 calendar days of detection. A repair is considered successful if it meets any of the following conditions:

i. a component is monitored (or remonitored) to verify that the instrument reading is below the applicable leak definition in Paragraph C.1 of this Section;

ii. a component that has been identified as leaking using the AWP, either meets Clause C.3.a.i of this Section, or the emissions are no longer visible using the AWP; or

iii. a component in liquid service that has been identified as leaking by visual, audible, or olfactory means, including, use of the soap bubble test for natural gas processing plants, either meets Clause C.3.a.i of this Section, or when visual, audible, or olfactory indications of the leak have been eliminated.

b. Equipment that cannot be repaired shall be placed on a delay-of-repair list, unless it can be isolated or bypassed to eliminate the leak. Repair of equipment on the delay-of-repair list shall occur by the end of the next scheduled process unit shutdown. The *administrative authority* as defined in LAC 33:III.111.A reserves the right to take enforcement action pursuant to R.S. 30:2025, should it be determined that the total percentage of components on the delay-of-repair list is excessive or is causing damage to public health or the environment.

c. Equipment placed on the delay-of-repair list in accordance with Subparagraph C.3.b of this Section may be removed from the list if it meets any of the following conditions:

i. the equipment is monitored or imaged, and for two consecutive monthly periods, either the instrument readings are below the leak limitation specified in Paragraph C.1 of this Section or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP; or

ii. the owner or operator has undertaken additional or extraordinary efforts to repair the leaking equipment, and subsequent monitoring or imaging demonstrates that either the instrument readings are below the leak limitation in Paragraph C.1 of this Section, or there are no visible emissions using an optical gas imaging instrument pursuant to the AWP. Extraordinary efforts are non-routine repair methods (e.g., sealant injection, clamp installation) or utilization of a closed-vent system to capture and control the leak by at least 90 percent.

[Note: The decision to monitor equipment on the delay-of-repair list or undertake extraordinary efforts to repair equipment shall be made solely at the owner or operator's discretion.]

D. Monitoring and Inspection Requirements. Monitoring of components by Method 21 and inspections shall be conducted according to this Subsection. After initially complying with this Subsection, the owner or operator may elect to comply with the appropriate alternate monitoring schedule(s) in Subsection E of this Section. In lieu of Method 21 monitoring, optical imaging may be conducted in accordance with the AWP. If the owner or operator elects to use the AWP, the requirements for instrument specifications, instruments checks, monitoring frequency, leak survey procedures, recordkeeping, and reporting shall be followed as described in 40 CFR 60.18 (g), (h), and (i). The alternate monitoring schedule(s) in Subsection E of this Section are not applicable when using the AWP.

1. Petroleum refineries, SOCMI facilities, MTBE manufacturing facilities, and polymer manufacturing facilities shall perform the following.

a. Monitor process drains one time per calendar year (annually).

b. Monitor the following components four times per year (quarterly):

i. compressor seals;

ii. pressure relief valves in gas/vapor service;

iii. valves in light liquid service and valves in gas/vapor service; and

iv. pumps in light liquid service.

c. Inspect pump seals visually 52 times a year (weekly).

d. Inspect or monitor all flanged connectors in accordance with either Clause D.1.d.i or ii of this Section.

i. Inspect all flanged connectors weekly by visual, audible, or olfactory means.

ii. Monitor flanged connectors in light liquid and gas/vapor service four times per year (quarterly) as follows.

(a). Either 200 or 10 percent, whichever is less, of the flanged connectors shall be monitored each quarterly period in accordance with a written sampling plan.

(b). The sampling plan shall ensure that at least 66 percent of the flanged connectors monitored each quarterly period shall not have been previously monitored, until all flanged connectors within the process unit have been monitored.

e. Inspect instrumentation systems weekly by visual, audible, or olfactory means. As an alternative to weekly sensory inspections, monitor individual valves and flanged connectors of an instrumentation system in accordance with Clauses D.1.b.iii and D.1.d.ii of this Section, respectively.

f. Records of visual, audible, or olfactory inspections of connectors and instrumentation systems are not required unless a leak is detected.

2. Natural Gas Processing Plants shall perform the following.

a. Inspect pump seals and compressor seals visually 52 times a year (weekly).

b. Monitor the following components four times a year (quarterly):

i. pumps in light liquid service;

ii. compressor seals;

iii. pressure relief valves in gas/vapor service; and

iv. valves in light liquid service and valves in gas/vapor service.

c. Inspect instrumentation systems 52 times a year (weekly) by visual, audible, or olfactory means. As an alternative to weekly sensory inspections, monitor individual valves of an instrumentation system in accordance with Clause D.2.b.iv of this Section.

d. Records of visual, audible, or olfactory inspections of instrumentation systems are not required unless a leak is detected.

3. Facilities Listed in Paragraphs D.1 and 2 of This Section

a. Monitor any pressure relief valve in gas/vapor service within five calendar days after it has vented to the atmosphere. Difficult-to-monitor pressure relief valves shall be monitored within 15 calendar days and unsafe-to-monitor pressure relief valves shall be monitored as soon as possible, when conditions allow the component to be safely monitored.

b. Within five calendar days, any component listed in Subparagraphs A.1.a.-i of this Section identified as leaking by visual, audible, or olfactory means shall be:

i. repaired in accordance with Clause C.3.a.iii of this Section;

ii. monitored using either Method 21 or the AWP, or

iii. designated as a leak pursuant to Method 21 or the AWP.

c. Difficult-to-monitor components shall be monitored within 15 calendar days and unsafe-to-monitor components shall be monitored as soon as possible, when conditions allow the component to be safely monitored. Visual, audible, or olfactory leaks either designated as a leak, or, confirmed to be in excess of the applicable leak limitation in Paragraph C.1 of this Section by Method 21 monitoring, shall be repaired according to Subparagraph C.3.a of this Section.

d. Difficult-to-monitor valves shall be monitored once per calendar year.

e. Unsafe-to-monitor equipment shall be monitored as soon as possible when conditions allow the component to be monitored safely (e.g., during a shutdown).

f. Any valve that is designated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Clause D.1.b.iii or D.2.b.iv of this Section if the valve:

i. has no external actuating mechanism in contact with the process fluid (e.g., diaphragm valves, sealed bellows valves);

ii. is operated with emissions less than 500 ppm above background as measured by Method 21; and

iii. is monitored for compliance with Clause D.3.e.ii of this Section initially upon designation and once per calendar year thereafter.

g. Equipment that begins operation after the initial startup date for the process unit shall be monitored for the first time by the end of the monitoring period in which the process unit startup is completed, or 45 calendar days after the startup period is completed, whichever is later. Equipment that replaces leaking equipment shall continue with the monitoring schedule for the equipment that it replaced.

h. Monitoring to verify repairs that were made during a process unit shutdown shall occur by the end of the monitoring period in which the process unit startup is completed, or 45 calendar days after the startup period is completed, whichever is later.

4. Exemptions and inspections are not required on the following:

a. pressure relief devices, pump seals or packing, and compressor seals or packing where leaks are vented to a process or fuel gas system, or equipped with a closed-vent system capable of capturing and transporting leakage to a control device;

b. pressure relief devices equipped with a rupture disc, or other similar leak-tight pressure relief component, upstream of the pressure relief device; provided that after each pressure release, the rupture disc, or other similar leak-tight component is replaced as soon as practicable; but not later than 15 calendar days;

c. equipment in vacuum service;

d. equipment at natural gas processing plants with less than 40 million standard cubic feet per day rated capacity that do not fractionate natural gas liquids;

e. components contacting only organic compounds exempted under LAC 33:III.2117 or mixtures of same with water;

f. pumps and compressors that are sealless or have a double mechanical seal;

g. pumps designed with no external shaft penetrating the pump housing;

h. research and development pilot facilities and small facilities with less than 100 valves in gas/vapor or liquid service;

i. insulated or buried equipment;

j. components that have been placed on a delay-of-repair list are exempt from further monitoring until a repair has been attempted, except that an owner or operator may monitor components on the delay-of-repair list in accordance with Clause C.3.c.i of this Section in order to attempt to remove equipment from the delay-of-repair list;

k. check valves;

l. process drains that are components of individual drain systems subject to 40 CFR 60 Subpart QQQ, 40 CFR 61 Subpart FF, or 40 CFR 63 Subparts G or YY; and

m. process drains at facilities subject to LAC 33:III.2153.

5. Alternate Monitoring Program. Any facility that already has in place a fugitive emission monitoring program which controls emissions to a higher degree than required under this Section shall be exempted from this Section upon submittal of a description of the program to the administrative authority* and approval thereof. A facility which has consolidated into an overall more stringent program in accordance with the Louisiana Consolidated Fugitive Emissions Program (i.e., with a Source Notice and Agreement or a Title V permit) is exempted from having to submit a description of the program to the administrative authority*. (The Louisiana Fugitive Emission Program Consolidation Guidelines are contained in LAC 33:III.2199.Appendix B).

6. Force Majeure

a. If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the administrative authority, in writing, as soon as practical following the date the owner or operator first knew, or through due diligence should have known that the event may cause or has caused a delay in monitoring beyond the regulatory deadline. The notification shall occur before the monitoring deadline unless the initial force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

b. The owner or operator shall provide to the administrative authority a written description of the force majeure event and a rationale for attributing the delay in monitoring beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the monitoring. The monitoring shall be conducted as soon as practicable after the force majeure occurs.

c. The decision to grant an extension to the monitoring deadline is solely within the discretion of the administrative authority. The administrative authority shall notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practical.

d. Until an extension of the monitoring deadline has been approved by the administrative authority under Subparagraph D.6.c of this Section, the owner or operator of the affected facility remains subject to the requirements of this Section.

E. Alternate Monitoring Frequency. The monitoring schedule in Paragraph D.1 or 2 of this Section may be modified as follows.

1. Alternate Standards for Valves Subject to Subparagraph D.1.b or D.2.b of This Section—Skip Period Leak Detection and Repair

a. An owner or operator may elect to comply with one of the alternate work practices specified in Subparagraph E.1.b, c, or e of this Section. However, the administrative authority shall be notified in writing before one of the alternate work practices is implemented.

b. After two consecutive quarterly leak detection periods with the percent of leaking valves (Equation 1) equal to or less than 2.0, an owner or operator may begin to skip one of the quarterly leak detection periods for valves in gas/vapor and/or light liquid service.

c. After five consecutive quarterly leak detection periods with the percent of leaking valves (Equation 1) equal to or less than 2.0, an owner or operator may begin to skip three of the quarterly leak detection periods for valves in gas/vapor and/or light liquid service.

d. If, after implementing one of the alternate work practices in Subparagraph E.1.b or c of this Section, the percent of leaking valves (Equation 1) increases to greater than 2.0, or the total percent of leaking and delay-of-repair valves (Equation 2) increases to greater than 4.0, the owner or operator shall comply with the requirements in Paragraph D.1 or 2 of this Section, but subsequently may elect to use this Subsection when the requirements are met.

e. Existing equipment that has been monitored under LAC 33:III.2121 for fugitives at the leak definition of 10,000 ppm can initially elect to use this alternate standard if the unit has data documented with the administrative authority by either January 1, 1996, or for the 12 months prior to becoming subject to this Section, that indicates the percent of leaking valves (Equation 1) is less than or equal to a 2.0 percent leak rate at 10,000 ppm for the required time periods as specified in Subparagraph E.1.b or c of this Section.

2. Alternate Standards for Valves Subject to Subparagraph D.1.b or D.2.b of this Section—Increased Monitoring Frequency. If the percent of leaking valves (Equation 1) is greater than 2.0, or the total percent of leaking and delay-of-repair valves (Equation 2) is greater than 4.0, then an increase in the frequency of monitoring may be required by the administrative authority.

3. Alternate Standards for Flanged Connectors Subject to Clause D.1.d.ii of This Section—Skip Period Leak Detection and Repair

a. An owner or operator may elect to comply with the alternate work practice specified in Subparagraph E.3.b of this Section. However, the administrative authority shall be notified in writing before the alternate work practice is implemented.

b. After four consecutive quarterly leak detection periods with the percent of leaking flanged connectors (Equation 1) equal to or less than 1.0, an owner or operator may begin to skip three of the quarterly leak detection periods for flanged connectors in gas/vapor and/or light liquid service.

c. If, after implementing the AWP in Subparagraph E.3.b of this Section, the percent of leaking flanged connectors (Equation 1) increases to greater than 1.0, or the total percent of leaking and delay-of-repair flanged connectors (Equation 2) increases to greater than 2.0, the owner or operator shall comply with the requirements as described in Clause D.1.d.ii of this Section, but subsequently may elect to use this Subsection when the requirements are met.

4. Alternate Standards for Flanged Connectors Subject to Clause D.1.d.ii of this Section—Increased Monitoring Frequency. If the percent of leaking flanged connectors (Equation 1) is greater than 1.0, or the total percent of leaking and delay-of-repair flanged connectors (Equation 2) is greater than 2.0, then an increase in the frequency of monitoring may be required by the administrative authority.

5. The percent of leaking components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 1 below. (Equation 1 shall be calculated separately for each component type.)

Equation 1

where:

$\%C_1$ = percent of leaking components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

6. The total percent of leaking and delay-of-repair components for which alternate control techniques are allowed by this Subsection shall be determined for each process unit using Equation 2. (Equation 2 shall be calculated separately for each component type.)

Equation 2

where:

$\%C_{T2}$ = total percent of leaking components including delay-of-repair list components

C_L = number of components found leaking by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

C_{TU} = number of components on the delay-of-repair list at the end of the previous monitoring period

C_T = number of components monitored by Method 21 during the monitoring period, not including components remonitored to verify repair or components on the delay-of-repair list at the end of the previous monitoring period

7. Alternate Standard for Batch Processes. As an alternate to complying with the requirements in Subsection D of this Section an owner or operator of a batch process in VOC service may elect to comply with one of the following alternate work practices. The batch product-process equipment shall be tested with a gas using the procedure specified in Subparagraph E.7.a of this Section or with a liquid using the procedure specified in Subparagraph E.7.b of this Section.

a. The following procedure shall be used to pressure test batch product-process equipment using a gas (e.g., air or nitrogen) to demonstrate compliance.

i. The batch product-process equipment train, or section of the train, shall be pressurized with a gas to the operating pressure of the equipment. The equipment shall be tested at a pressure lower than the lowest pressure setting of any relief device.

ii.Once the test pressure is obtained, the gas source shall be shut off.

iii. The test shall continue for not less than 15 minutes, unless it can be determined in a shorter period of time that the allowable rate of pressure drop was exceeded. The pressure in the batch product-process equipment shall be measured after the gas source is shut off and at the end of the test period. The rate of change in pressure in the batch product-process equipment shall be calculated using Equation 3.

Equation 3

$$\frac{P}{t} = \frac{P_f - P_i}{t_f - t_i}$$

where:

P/t = change in pressure, psi/hr

P_f = final pressure, psi

P_i = initial pressure, psi

$t_f - t_i$ = elapsed time, hours

iv. The pressure shall be measured using a pressure measurement device (e.g., gauge, manometer, or equivalent) that has a precision of ±2.5 millimeters (±0.05 psi) of mercury over the range of measured test pressures and is capable of measuring pressures up to the lowest pressure setting of any relief device.

v. A leak is detected if the rate of change in pressure (Equation 3) is greater than 6.9 kPa (1 psi) per hour or if there is visible, audible, or olfactory evidence of a leak.

b. The following procedure shall be used to pressure test batch product-process equipment using a liquid to demonstrate compliance.

i. The batch product-process equipment train, or section of the train, shall be filled with the test liquid (e.g., water, alcohol). Once the equipment is filled, the liquid source shall be shut off.

ii. The test shall be conducted for a period not less than 60 minutes, unless it can be determined in a shorter period of time that the test is a failure.

iii. Each seal in the equipment being tested shall be inspected for indications of liquid dripping or other indications of fluid loss. If there are any indications of liquids dripping or of fluid loss, a leak is detected.

c. If a leak is detected, it shall be repaired and the batch product-process equipment shall be retested before VOCs are fed to the equipment.

d. If the batch product-process equipment fails the retest or the second of two consecutive pressure tests, it shall be repaired as soon as practicable, but no later than 30 calendar days after the equipment is placed in VOC service.

F. Recordkeeping

1. When a component remains leaking after every reasonable attempt at repair within the 15-calendar day period provided by Subparagraph C.3.a of this Section has been exhausted, a weatherproof and readily visible tag bearing an identification number and the date the leak was located shall be affixed to the leaking component. After the leak has been repaired the tag may be removed.

2. A survey log shall be maintained by the owner or operator and shall include the following:

a. the name of the process unit where the leaking component is located;

b. the type of the leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section;

e. the date the leak was located;

f. the date maintenance was performed;

g. the date(s) the component was rechecked after maintenance, and the results (i.e., instrument reading; visual, audible, or olfactory results; soap bubble test results; AWP video);

h. a record of the monitor calibration or AWP daily instrument check;

i. a delay-of-repair list;

j. a bypassed or isolated component list; and

k. a record of all monitoring, imaging, and inspection results.

3. The owner or operator shall retain the survey log for two years after the latest date specified in Paragraph F.2 of this Section and make the log available to the administrative authority upon request.

4. The optional use of the AWP shall require storing video and other records of the daily instrument check and inspections as required in 40 CFR 60.18.

G. Reporting Requirements. The owner or operator of the affected facility shall submit a report semiannually to the Office of Environmental Services containing the information listed in Paragraphs G.1-5 of this Section for each calendar quarter during the reporting period, except for affected facilities that elect to meet the requirements of the alternate standard for batch processes in Paragraph E.5 of this Section, for which the report shall include the information listed in Paragraphs G.6-9 of this Section. The reports are due by the last day of the month (January and July) following the monitoring period or by an alternate date approved by the administrative authority. The reports shall include the following information for each quarter of the reporting period:

1. the number of each component type for which monitoring is required by Subsection D or E of this Section versus the number monitored;

2. the percent of leaking components (Equation 1) for each component type and the number of leaks detected by visual, audible, or olfactory means for each component type;

3. the total percent of leaking and delay-of-repair components (Equation 2) for each component type;

4. a listing of all leaks that were identified, but not repaired, within the 15-day limit, including the following information:

a. the name of the process unit where the leaking component is located and the date of last unit shutdown;

b. the type of leaking component;

c. the stream identification at the leak;

d. the identification number from the tag required by Paragraph F.1 of this Section, if the component is on the delay-of-repair list;

e. the date the leak was located;

f. the monitoring or inspection results;

g. the date maintenance was performed;

h. the date the leak is expected to be repaired if the component is on the delay-of-repair list; and

i. the reason repairs failed or were postponed;

5. a signed statement attesting to the fact that all requirements of this Section have been met;

6. the batch process equipment train identification;

7. the number of pressure tests conducted;

8. the number of pressure tests that the equipment train failed; and

9. a signed statement attesting to the fact that all requirements of this Section have been met.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:1102 (October 1994), repromulgated LR 20:1279 (November 1994), amended LR 22:1129 (November 1996), LR 22:1212 (December 1996), repromulgated LR 23:197 (February 1997), amended LR 23:1678 (December 1997), LR 24:22 (January 1998), LR 24:1285 (July 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2453 (November 2000), LR 28:1764 (August 2002), LR 30:1660 (August 2004), repromulgated by the Office of Environmental Assessment, LR 30:2030 (September 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2440 (October 2005), LR 33:2086 (October 2007); amended by the Office of the Secretary, Legal Division, LR 39:2243 (August 2013).

Subchapter N. Capture Efficiency Test Procedures

[*Editor's Note*: This Subchapter was moved and renumbered from Chapter 61 (December 1996).]

§2199. Appendix A and B

Appendix A. ...

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Appendix B. Louisiana Consolidated Fugitive Emissions Program (LCFEP)

Through a memorandum of understanding signed in 1996, the Louisiana Department of Environmental Quality (LDEQ) entered into an agreement with the U.S. Environmental Protection Agency (EPA) Region 6 to administer a program titled the Louisiana Consolidated Fugitive Emissions Program (LCFEP). The agreement established guidelines for the consolidation of multiple leak detection and repair (LDAR) programs at industrial facilities into a single program. At facilities that are subject to multiple LDAR standards, LCFEP provides the option of consulting a prioritized stringency table of programs in order to determine the overall most stringent program applicable to the facility, and then administer that program solely in lieu of implementing all fugitive programs simultaneously.

Under the current agreements between EPA and LDEQ, and between LDEQ and individual facilities, participating industry conducts the most stringent LDAR program and submits a single report, greatly reducing the regulatory burden created by overlapping state and federal LDAR programs.

The governing memorandum of understanding states:

State and EPA Region 6 agree to implement and enforce fugitive emission program requirements in accordance with the Louisiana Fugitive Emission Program Consolidation Guidelines to provide a mechanism for consolidating overlapping state and federal equipment leak programs in agreement with the affected source. EPA Region 6 and the State accept federal and state enforceability of the consolidated program. The State and EPA Region 6 further agree that compliance with a consolidated program in accordance with the Guidelines will be considered compliance with each of the fugitive emission programs being consolidated. Furthermore, it is understood that an affected source's noncompliance with the consolidated program requirements may subject the affected source to enforcement action for one or more of the requirements of fugitive emissions programs being consolidated. This agreement will be implemented only through a Source Notice and Agreement signed by and specific to each affected source. If in the future, a new federal standard is promulgated (i.e., consolidated air rule, MACT, etc.) that could potentially change the established Guidelines, the Guidelines will be revisited and modified as necessary.

The Source Notice and Agreement (SNA) is a memorandum submitted by an interested facility which contains a detailed list of programs to be consolidated. Consolidation is done on either a unit-by-unit or a facility-wide basis. The SNA is required to be signed by a facility representative meeting EPA's responsible official designation, defined under 40 CFR 63.2. Once the SNA is signed by the facility and accepted by LDEQ, the agreement is considered to be in effect for compliance purposes. SNAs are accepted or denied based on the correctness of the consolidation table, and the signature of a proper representative.

Facilities operating a consolidated fugitive program must abide by the program's consolidation guidelines. The guidelines consist of a set of rules called the workpractice terms and conditions and the stringency table (Table 9) of this Appendix.

Louisiana Fugitive Emission Program Consolidation Guidelines

Workpractice Terms and Conditions

These terms and conditions are to be used in conjunction with the stringency table (Table 9) of this Appendix. Of the applicable equipment leak programs being consolidated, the program highest in the table hierarchy is to be considered the overall most stringent program under the guidelines. The guidelines may be used only in accordance with a SNA or a Title V permit.

Applicability and Exemptions

The consolidated program shall apply to the combined universe of components subject to any of the programs being consolidated.

The consolidation of fugitive programs shall be conducted at a minimum of the process unit level, and may also be on a facility-wide basis.

Consolidation of RCRA programs shall first be approved by LDEQ's Waste Permits Division.

Component types which do not require periodic monitoring under the overall most stringent program, shall be monitored as required by the most stringent requirements of any other program being consolidated and will not be exempted.

The consolidated program shall include any exemptions based on size of component available in any of the programs being consolidated.

The consolidated program cannot be used to replace requirements for area monitoring under the Vinyl Chloride NESHAP.

For any compressor subject to a federal rule requiring a seal system including barrier fluid, sensor, and alarm, periodic monitoring of compressors may not be used in lieu of the seal system requirements, regardless of the overall most stringent program.

Leak Definitions

Leak definitions are based on the overall most stringent program as determined from Table 9 of this Appendix.

Phase-in periods allowed under federal regulations are not eliminated as long as there is no backsliding of existing monitoring programs.

Monitoring Frequency

Monitoring frequency shall be based on the overall most stringent program as determined from Table 9 of this Appendix.

Annual monitoring shall be defined as once every four quarters, regardless of the overall most stringent program. Some allowance may be made in the first year of the consolidation in order to allow for transition from existing monitoring schedules.

Calibration

Use of dilution device for calibration, as defined in Method 21, is acceptable.

Identification of Components

All leaking components must be tagged.

If the Benzene NESHAP and a more stringent program are applicable, the overall most stringent program prevails and physical tagging of

components is therefore not required. Identification, either by list or location (area or group) of affected components is acceptable.

Leak Performance

The determination of leak performance is based on the overall most stringent program as determined from Table 9 of this Appendix.

Repair

Repair period requirements are always first attempt within 5 days of detecting the leak and final repair within 15 days of detecting the leak, regardless of the overall most stringent program.

Post Repair

Post repair inspection consists of remonitoring once within 3 months after repair of leaks, regardless of the overall most stringent program.

Recordkeeping and Reporting

Recordkeeping and reporting information requirements shall be based on the overall most stringent program as determined from Table 9 of this Appendix.

Reporting frequency shall be semiannual regardless of the overall most stringent program.

Reports shall include records for any monitoring performed within the semiannual reporting period.

Louisiana Consolidated Fugitive Emission Program Stringency Table

Stringency Table (Table 9)

This stringency table is to be used in conjunction with the workpractice terms and conditions. Consolidation is done between the groups listed. Of the applicable equipment leak programs being consolidated, the program in the highest group in the table hierarchy is to be considered the overall most stringent program under the guidelines. Referencing Subparts shall comply with the referenced program in the manner required by the provisions of the referencing Subpart. The guidelines may be used only in accordance with a SNA or a Title V permit. Programs shall be consolidated on a unit-wide or a facility-wide basis.

Table 9 Stringency Table
• 40 CFR 65 Subpart F – Consolidated Air Rule
• 40 CFR 63 Subpart H – SOCMI HON MACT and Referencing Subparts o 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (HON Option) o 40 CFR 63 Subpart UUUU – Cellulose Products MACT (HON Option) o 40 CFR 63 Subpart W – Polymers and Resins II MACT o 40 CFR 63 Subpart PPP – Polyether Polyols Production MACT
• 40 CFR 63 Subpart UU – General MACT for Equipment Leaks – Control Level II and Referencing Subparts o 40 CFR 63 Subpart YY – Generic MACT (Acetal Resins Production, Acrylic and Modacrylic Fibers Production, Cyanide Chemicals Manufacturing, Polycarbonates Production, Ethylene Processes) (UU Option) o 40 CFR 63 Subpart OOO – Amino/Phenolic Resins Manufacturing MACT o 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (Subpart UU Option) o 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing (Subpart UU Option) o 40 CFR 63 Subpart UUUU – Cellulose Products MACT (Subpart UU Option) o 40 CFR 63 Subpart GGGGG – Site Remediation MACT (Subpart UU Option) o 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart UU Option)
• 40 CFR 63 Subpart U – Polymers and Resins I, Elastomer MACT
• 40 CFR 63 Subpart GGG – Pharmaceuticals Production MACT • 40 CFR 63 Subpart MMM – Pesticide Active Ingredient Production MACT

Table 9 Stringency Table
• Louisiana MACT Determination for Non-HON Sources w/ Consent Decree Enhancements • Louisiana MACT Determination for Refineries w/ Consent Decree Enhancements
• 40 CFR 60 Subpart VVa – NSPS for Equipment Leaks In SOCMI Facilities o 40 CFR 60 Subpart GGGa – NSPS for Equipment Leaks in Petroleum Refineries
• Louisiana MACT Determination for Non-HON Sources • Louisiana MACT Determination for Refineries
• LAC 33:III.2122 – Louisiana Fugitive Emission Control for Nonattainment
• 40 CFR 63 Subpart CC – Refining MACT Modified HON option
• 40 CFR 61 Subpart F – National Emission Standard for Vinyl Chloride • 40 CFR 61 Subpart V – National Emission Standard for Equipment Leaks and Referencing Subparts o 40 CFR 61 Subpart J – National Emission Standard for Equipment Leaks of Benzene • 40 CFR 63 Subpart HH – Oil and Natural Gas Production MACT
• 40 CFR 60 Subpart VV – NSPS for Equipment Leaks In SOCMI Facilities o 40 CFR 60 Subpart GGG – NSPS for Equipment Leaks in Petroleum Refineries o 40 CFR 60 Subpart KKK – NSPS for Equipment Leaks in Onshore Natural Gas Processing Plants o 40 CFR 63 Subpart CC – Refinery MACT NSPS Option
• 40 CFR 63 Subpart TT – General MACT for Equipment Leaks – Control Level I and Referencing Subparts o 40 CFR 63 Subpart EEEE – Organic Liquids Distribution (Non-Gasoline) MACT (Subpart TT Option) o 40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Production and Processes MACT (Subpart TT Option) o 40 CFR 63 Subpart GGGGG – Site Remediation MACT (Subpart TT Option) o 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart TT Option) o 40 CFR 63 Subpart YY – Generic MACT (Acetal Resins Production, Acrylic and Modacrylic Fibers Production, Cyanide Chemicals Manufacturing, and Polycarbonates Production) (TT Option)
• 40 CFR 264 – RCRA Subpart BB (LAC 33:V.1717.Subchapter B) • 40 CFR 265 – RCRA Subpart BB (LAC 33:V.4561.Subchapter R)
• LAC 33:III.2121 – Louisiana Fugitive Emission Control • 40 CFR 63 Subpart III – Flexible Polyurethane Foam Production MACT
• 40 CFR 63 Subpart R – Gasoline Distribution Terminals MACT and Referencing Subpart o 40 CFR 63 Subpart HHHHH – Miscellaneous Coating Manufacturing MACT (Subpart R Option) • 40 CFR 63 Subpart YY – Generic MACT (Hydrogen Fluoride Manufacturing)

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, LR 11:529 (May 1985) amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 17:654 (July 1991), LR 23:1508 (November 1997), amended by the Office of the Secretary, Legal Division, LR 39:2250 (August 2013).

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste
Chapter 22. Prohibitions on Land Disposal
Subchapter B. Hazardous Waste Injection Restrictions

§2267. Waste-Specific Prohibitions—Third Third Wastes

A. Effective January 1, 1991, the wastes specified in LAC 33:V.Chapter 49 as F039 (wastewaters), K002, K003, K005, K006, K007, K026, K032, K033, K034, K036 (wastewaters), K093, K094, K100 (wastewaters), K100 (generated by the process described in the waste listing description and disposed of after August 17, 1989, and not generated in the course of treating wastewater forms of these wastes), P006, P009, P013, P017, P022, P023, P024, P028, P031, P033, P034, P038 (wastewaters), P042, P045, P046, P047, P051, P056, P064, P065 (wastewaters), P073, P075, P076, P077, P078, P088, P093, P095, P096, P099, P101, P103, P116, P118, P119, U001, U004, U006, U017, U024, U027, U030, U033, U034, U038, U039, U042, U045, U048, U052, U055, U056, U068, U071, U072, U075, U076, U079, U081, U082, U084, U085, U087, U088, U090, U091, U096, U102, U112, U113, U117, U118, U120, U121, U123, U125, U126, U132, U136, U141, U145, U148, U152, U153, U156, U160, U166, U167, U181, U182, U183, U184, U186, U187, U190, U191, U194, U197, U201, U204, U207, U222, U225, U234, U236, U240, U243, U246, and U247 and the following wastes identified as hazardous based on a characteristic alone designated as D001, D004 (wastewaters), D005, D006, D008 (except for lead materials stored before secondary smelting), D009 (wastewaters), D010, D011, D012, D013, D014, D015, D016, and D017 and newly listed F025 are prohibited from underground injection.

B. – D.3. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1801 (October 1999), amended by the Office of the Secretary, Legal Division, LR 39:2491.

§2299. Appendix-Tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory[1]	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS[2] Number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]
		***			
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.~~[10]~~	Acetonitrile	75-05-8	5.6	1.8
		Acetophenone	98-86-2	0.010	9.7
		Aniline	62-53-3	0.81	14
		Benomyl[10]	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Benzene	71-43-2	0.14	10
		Carbaryl[10]	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbenzadim[10]	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory[1]	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS[2] Number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]
		Carbofuran[10]	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan[10]	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl[10]	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyridine	110-86-1	0.014	16
		Toluene	108-88-3	0.080	10
		Triethylamine[10]	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		Methomyl[10]	16752-77-5	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		o-Phenylenediamine Repealed.			
		Pyridine	110-86-1	0.014	16
		Triethylamine[10]	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K158	Bag house dusts and filter/separation solids from the production of	Benomyl Repealed.			
		Benzene	71-43-2	0.14	10

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory[1]	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS[2] Number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]
	carbamates and carbamoyl oximes.	Carbenzadim[10]	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Carbofuran[10]	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
		Carbosulfan[10]	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Chloroform	67-66-3	0.046	6.0
		Methylene chloride	75-09-2	0.089	30
		Phenol	108-95-2	0.039	6.2
K159	Organics from the treatment of thiocarbamate wastes.~~[10]~~	Benzene	71-43-2	0.14	10
		Butylate[10]	2008-41-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		EPTC (Eptam)[10]	759-94-4	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Molinate[10]	2212-67-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Pebulate[10]	1114-71-2	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		Vernolate[10]	1929-77-7	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust, and floor sweepings from the production of dithiocarbamate acids and their salts.	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
		Dithiocarbamates (total)[10]	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP
		***			
P127	Carbofuran[10]	Carbofuran	1563-66-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory[1]	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS[2] Number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]
P128	Mexacarbate [10]	Mexacarbate	315-18-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate [10]	Tirpate	26419-73-8	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate [10]	Physostigmine salicylate	57-64-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan [10]	Carbosulfan	55285-14-8	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190	Metolcarb [10]	Metolcarb	1129-41-5	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P191	Dimetilan [10]	Dimetilan	644-64-4	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P192	Isolan [10]	Isolan	119-38-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl [10]	Oxamyl	23135-22-0	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P196	Manganese dimethyldithiocarbamate [10]	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197	Formparanate [10]	Formparanate	17702-57-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride [10]	Formetanate hydrochloride	23422-53-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb [10]	Methiocarb	2032-65-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb [10]	Promecarb	2631-37-0	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P202	m-Cumenyl methylcarbamate [10]	m-Cumenyl methylcarbamate	64-00-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone [10]	Aldicarb sulfone	1646-88-4	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory[1]	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS[2] Number	Concentration in mg/L[3]; or Technology Code[4]	Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]
P204	Physostigmine [10]	Physostigmine	57-47-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205	Ziram [10]	Dithiocarbamates (total)	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
		***			
U202	Saccharin and salts Repealed.				
		***			
U271	Benomyl [10]	Benomyl	17804-35-2	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb [10]	Bendiocarb	22781-23-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279	Carbaryl [10]	Carbaryl	63-25-2	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280	Barban [10]	Barban	101-27-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
		***			
U364	Bendiocarb phenol [10]	Bendiocarb phenol	22961-82-6	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol [10]	Carbofuran phenol	1563-38-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbendazim [10]	Carbendazim	10605-21-7	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham [10]	Propham	122-42-9	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U387	Prosulfocarb [10]	Prosulfocarb	52888-80-9	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389	Triallate [10]	Triallate	2303-17-5	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A2213 [10]	A2213	30558-43-1	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395	Diethylene glycol, dicarbamate [10]	Diethylene glycol, dicarbamate	5952-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

Table 2. Treatment Standards for Hazardous Wastes					
Waste Code	**Waste Description and Treatment/Regulatory Subcategory[1]**	**Regulated Hazardous Constituent**		**Wastewaters**	**Non-Wastewaters**
		Common Name	**CAS[2] Number**	**Concentration in mg/L[3]; or Technology Code[4]**	**Concentration in mg/kg[5] unless noted as "mg/L TCLP" or Technology Code[4]**
U404	Triethylamine [10]	Triethylamine	121-44-8	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl [10]	Thiophanate-methyl	23564-05-8	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410	Thiodicarb [10]	Thiodicarb	59669-26-0	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411	Propoxur [10]	Propoxur	114-26-1	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

Footnote 1. – Footnote 12. …

[NOTE: NA means Not Applicable.]

Table: 3. – 6. …

Table 7. Universal Treatment Standards			
Regulated Constituent-Common Name	**CAS[1] Number**	**Wastewater Standard Concentration[2] in mg/L**	**Nonwastewater Standard Concentration[3] in mg/kg unless noted as "mg/L TCLP"**
Organic Constituents			
***			
Aldicarb sulfone[6]Repealed.			
***			
Barban[6] Repealed.			
Bendiocarb[6] Repealed.			
Benomyl[6] Repealed.			
***			
Butylate[6] Repealed.			
***			
Carbaryl[6] Repealed.			
Carbenzadim[6] Repealed.			
Carbofuran[6] Repealed.			
Carbofuran phenol[6] Repealed.			
***			
Carbosulfan[6] Repealed.			

Table 7. Universal Treatment Standards			
Regulated Constituent-Common Name	**CAS[1] Number**	**Wastewater Standard Concentration[2] in mg/L**	**Nonwastewater Standard Concentration[3] in mg/kg unless noted as "mg/L TCLP"**
***			
m-Cumenyl methylcarbamate[6] Repealed.			
***			
Dithiocarbamates (total) [6] Repealed.			
EPTC[6] Repealed.			
***			
Formetanate hydrochloride[6] Repealed.			
***			
Methiocarb[6] Repealed.			
Methomyl[6] Repealed.			
***			
Metolcarb[6] Repealed.			
Mexacarbate[6] Repealed.			
Molinate[6] Repealed.			
***			
Oxamyl[6] Repealed.			
***			
Pebulate[6] Repealed.			
***			
Physostigmine[6] Repealed.			

Table 7. Universal Treatment Standards			
Regulated Constituent-Common Name	**CAS[1] Number**	**Wastewater Standard Concentration[2] in mg/L**	**Nonwastewater Standard Concentration[3] in mg/kg unless noted as "mg/L TCLP"**
Physostigmine salicylate[6] Repealed.			
Promecarb[6] Repealed.			
***			
Propham[6] Repealed.			
Propoxur[6] Repealed.			
Prosulfocarb[6.] Repealed.			
***			
Thiodicarb [6] Repealed.			
Thiophanate-methyl [6] Repealed.			
***			
Triallate [6] Repealed.			
***			
Triethylamine[6] Repealed.			
***			
Vernolate[6] Repealed.			
***			
Inorganic Constituents			
***			

Footnote 1. – Footnote 5. …

Footnote [6] Reserved.

Footnote 7. – Footnote 8. …

[NOTE: NA means Not Applicable.]

Table: 8. – 12. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:834 (September 1996), LR 23:566 (May 1997), LR 24:301 (February 1998), LR 24:670 (April 1998), LR 24:1732 (September 1998), LR 25:451 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:282 (February 2000), LR 27:295 (March 2001), LR 29:322 (March 2003), LR 30:1682 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:828 (May 2006), LR 32:1843 (October 2006), LR 34:625 (April 2008), LR 34:1014 (June 2008), LR 38:777 (March 2012), amended by the Office of the Secretary, Legal Division, LR 39:2487, 2492 (September 2013).

Chapter 31. Incinerators

§3105. Applicability

A. – E. …

Table 1. Hazardous Constituents			
Common Name	**Chemical Abstracts Name**	**Chemical Abstracts Number**	**Hazardous Waste Number**
***			
Saccharin Repealed.			
Saccharin salts Repealed.			
***			
[1]The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this table.			

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 11:1139 (December 1985), LR 13:433 (August 1987), LR 14:424 (July 1988), LR 15:737 (September 1989), LR 16:399 (May 1990), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:944 (September 1995), LR 22:835 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:318 (February 1998), LR 24:681 (April 1998), LR 24:1741 (September 1998), LR 25:479 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:301 (March 2001), LR 28:1004 (May 2002), LR 29:323 (March 2003), amended by the Office of the Secretary, Legal Affairs Division, LR 32:830 (May 2006), LR 34:629 (April 2008), LR 34:1898 (September 2008), LR 34:2396 (November 2008), LR 35:1880 (September 2009), LR 35:2350 (November 2009), amended by the Office of the Secretary, Legal Division, LR 39:2492, (September 2013).

Chapter 49. Lists of Hazardous Wastes

[Note: Chapter 49 is divided into two sections: Category I Hazardous Wastes, which consist of Hazardous Wastes from nonspecific and specific sources (F and K wastes), Acute Hazardous Wastes (P wastes), and Toxic Wastes (U wastes) (LAC 33:V.4901); and Category II Hazardous Wastes, which consist of wastes that are ignitable, corrosive, reactive, or toxic (LAC 33:V.4903).]

§4901. Category I Hazardous Wastes

A. – F. …

Table 4. Toxic Wastes (Alphabetical Order by Substance)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
***		
U202 Repealed		
***		
U202 Repealed		
***		

[1]CAS Number given for parent compound only.

Table 4. Toxic Wastes (Numerical Order by EPA Hazardous Waste Number)

EPA Hazardous Waste Number	Chemical Abstract Number	Hazardous Waste (Substance)
***		
U202 Repealed.		
U202 Repealed.		
***		

[1]CAS Number given for parent compound only.

G. – Table 6. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq. and specifically 2180.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:1139 (December 1985), LR 12:319 (May 1986), LR 13:84 (February 1987), LR 13:433 (August 1987), LR 14:426 (July 1988), LR 14:791 (November 1988), LR 15:182 (March 1989), LR 16:220 (March 1990), LR 16:614 (July 1990), LR 16:1057 (December 1990), LR 17:369 (April 1991), LR 17:478 (May 1991), LR 17:658 (July 1991), LR 18:723 (July 1992), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 22:829, 840 (September 1996), amended by the Office of Waste Services, Hazardous Waste Division, LR 23:1522 (November 1997), LR 24:321 (February 1998), LR 24:686 (April 1998), LR 24:1754 (September 1998), LR 25:487 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 27:304 (March 2001), LR 27:715 (May 2001), LR 28:1009 (May 2002), LR 29:324 (March 2003), amended by the Office of Environmental Assessment, LR 31:1573 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:831 (May 2006), LR 33:1627 (August 2007), LR 34:635 (April 2008), LR 34:1020 (June 2008), LR 34:2392 (November 2008), LR 36:2555 (November 2010), LR 38:780 (March 2012), amended by the Office of the Secretary, Legal Division, LR 39:2492 (September 2013).